

REMARKS

Initially, Applicant's representative would like to thank the Examiner for the courteous interview on February 3, 2004.

Means-Plus-Function Element(s)

It appears that the current Office Action, at paragraph #1, is expressing that the Examiner considers the corresponding structure, material, or acts described in the specification and equivalents thereof for “routing means” to cover a resistor. However, it is respectfully submitted that the corresponding structure, material, or acts described in the specification and equivalents thereof for “routing means” covers (Patent Application, Page 6, Lines 4-8 and 19-24):

Routing means are provided for routing the compensated reference voltage V_{comp} on the integrated circuit to form the distributed reference voltage V_{dis} at receivers 112. Specifically, the compensated reference voltage V_{comp} is routed on the integrated circuit through traces to the individual data receivers 112, and forms V_{dis} at the receivers 112. [...]

More specifically, the distribution traces [that] have finite resistances or impedances along their lengths that contribute to the degradation or voltage change of distributed reference voltage V_{dis} . Such resistances are represented in Fig. 2 by finite resistor elements R_a through R_d , although it should be recognized that the resistances are distributed along the lengths of the traces rather than being discrete elements.

Hence, “routing means” does not necessarily include actual physical discrete elements.

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2 Title

3 The current Office Action asserted that the “title of the invention is not
4 descriptive”. It required a new title “that is clearly indicative of the invention to
5 which the claims are directed.”

6 The Office Action continued by stating that “It is not seen that the [previous]
7 amendment to the Title overcomes the objection. It is not understood how the
8 operation of ‘compensation’ per se can be an invention.” The Office Action
9 suggested that --circuit-- be inserted following “Compensation”.

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11 It is respectfully submitted that this suggested title amendment is
12 inappropriate inasmuch as it could be construed to exclude method claims to the
13 invention. Thus, to meet this new title requirement, the current title of ‘Distributed
14 Voltage Compensation with a Voltage Driver that is Responsive to Feedback’ has
15 been replaced with a new title of --Method and Apparatus for Distributed Voltage
16 Compensation with a Voltage Driver that is Responsive to Feedback--.

17 It is therefore respectfully requested that the new title requirement be
18 withdrawn.

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21 Drawings

22 The current Office Action required a change to Fig. 2 with regard to element
23 114 and V_{nom} . Figure 2 has been amended so that a V_{nom} input is shown for
24 reference voltage driver 114. An “Annotated Sheet Showing Changes” is attached
25 hereto as an Appendix with the amendment (i.e., the addition) indicated in red ink.

1 Also attached hereto, and included as part of this Reply, are four (4)
2 Replacement Sheets with the change to Figure 2 shown. These four (4) Replacement
3 Sheets are suitable for use as the official formal drawings.

4 It is therefore respectfully requested that the drawings be approved and that
5 the objection thereto be withdrawn.

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8 Claim Objections

9 The current Office Action objected to informalities in two claims 53 and 63.
10 Applicant's representative is unable to locate the noted informalities. Perhaps the
11 two apparent typographical errors are merely artifacts of a facsimile transmission.
12 Regardless, claims 53 and 63 as reproduced above in the claims section do not now
13 have these informalities.

14 Accordingly, it is respectfully requested that objections to the claims be
15 withdrawn.

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18 Claim Rejections and Amendments Generally

19 The current Office Action institutes a multiplicity of rejections and
20 requirements that include, it is respectfully submitted, conclusory assertions. For
21 example, a sentence on page 3 of the Office Action reads, "As a result, Feedback
22 Receiver 120 of Fig. 2 is deemed critical or essential to the practice of the invention,
23 but it is not included in the claim(s)." However, none of the preceding sentences
24 either individually or jointly lead to this conclusion. Also, with regard to the second
25 paragraph on page 5 of the Office Action, the Examiner's attention is respectfully

1 directed to MPEP §2164.08(c) ‘Critical Feature Not Claimed’. From this MPEP
2 section, it is clear that features that are described even in detail in a particular
3 implementation are not necessarily critical.

4 Applicants respectfully traverse the currently-instituted rejections and
5 requirements and respectfully disagree with the above-noted underlying assertions.
6 Nevertheless, to expedite allowance of the instant Application and its ultimate
7 issuance as Patent, rejected claims have been amended to meet the requirements of
8 the current Office Action.

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11 35 U.S.C. §112 Rejections

12 The current Office Action rejects claims under the first and second paragraphs
13 of 35 U.S.C. §112. It is believed that each of the various rejections has been
14 appropriately addressed.

15 It is therefore respectfully requested that the rejections under 35 U.S.C. §112
16 be withdrawn.

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19 35 U.S.C. §103 Rejections

20 The current Office Action rejects multiple claims “under 35 U.S.C. 103(a) as
21 being unpatentable over Manning (USPN 6,288,954) in view of Kajigaya et al.
22 (USPN 5,426,616).” It is believed that all pending claims are now allowable as
23 explained further herein below.

24 It is therefore respectfully requested that the rejections under 35 U.S.C. §103
25 be withdrawn.

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3 Allowable Claims

4 The current Office Action indicated that claims 33-42 would be allowable
5 upon rectification of any 35 U.S.C. 112, second paragraph issues.

6 The current Office Action also indicated that claim 47 was objected to but
7 would be allowable if appropriately rewritten in independent form.

8 The current Office Action further indicated that claim 54 would be allowable
9 upon rectification of any 35 U.S.C. 112, second paragraph issues if also
10 appropriately rewritten in independent form.

11 As mentioned above, it is believed that any 35 U.S.C. §112, second paragraph
12 issues have been rectified. Additionally, claims 47 and 54 have been appropriately
13 rewritten in independent form.

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16 Claim Arguments

17 Claims 1-73 are presently pending in the instant Application. Of these
18 claims, claims 1, 17, 33, 43, 47, 53, 54, 60, and 63 are independent.

19 As explained above under the 'Allowable Claims' section of this Reply,
20 claims 33, 47, and 54 should now be allowable.

21 The allowability of claims 1, 17, 43, 53, 60, and 63 are addressed further
22 below.

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24 The current Office Action reads at page 8:

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Claims 47 and 54, would be allowable because the above combination, as well as the remaining cited prior art, fails to provide the specification combination wherein the conductors providing the distributed reference voltages are ‘impedance-matched’. While the conductors in the above combination would be similar, it is not seen that they are ‘impedance-matched’. This is clear because one that the ‘conductors’ is in the Kajigaya et al. reference. There is no way to know if the conductors therein are the same as those in the reference to Manning.

Accordingly, no art of record, either alone or in any combination, anticipates or renders obvious at least the following elements in conjunction with the other elements of their respective claim(s):

Claim 60: **routing the compensated reference voltage over approximately impedance-matched resistive conductors to form a distributed voltage.**

Analogously, it is respectfully submitted that there is no particular relationship or similarity between the input buffers 18 and 20 of Manning and any feedback aspects of Kajigaya et al. (which are asserted to arise from OA1, OA2, or VLS at page 6 of the current Office Action).

Accordingly, no art of record, either alone or in any combination, anticipates or renders obvious at least the following elements in conjunction with the other elements of their respective claims:

Claim 1: **one or more components, including a feedback component, that receive a distributed voltage, wherein the feedback component of the one or more components has substantially similar input characteristics to at least one other component of the one or more components.**

1 **Claim 17: wherein the feedback receiver and at least one data receiver**
2 **of the one or more data receivers have substantially similar**
3 **input characteristics.**

4 **Claim 43: wherein the receiver and feedback means have similar input**
5 **characteristics so that said relative voltage change in the**
6 **distributed reference voltage is approximately the same at each of**
7 **the receiver and feedback means.**

8 **Claim 53: wherein the data and feedback receivers have substantially**
9 **similar input characteristics so that said relative voltage change in**
10 **the distributed reference voltage is approximately the same at**
11 **each of the data and feedback receivers.**

12 **Claim 63: a plurality of receivers having substantially similar input**
13 **characteristics that evaluate signals relative to a distributed**
14 **reference voltage, a particular receiver of the plurality of**
15 **receivers capable of evaluating a nominal reference voltage**
16 **signal relative to the distributed reference voltage to produce a**
17 **feedback signal.**

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21 Although each pending dependent claim includes additional element(s)
22 militating toward allowability, it is respectfully submitted that the dependent claims
23 are allowable at least for the reasons given above in connection with their respective
24 independent claims.
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CONCLUSION

It is respectfully submitted that all of claims 1-73 are allowable, and prompt action to that end is hereby requested.

Respectfully Submitted,

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By:

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Annotated Sheet Showing Changes
Amended Fig. 2
(V_{nom} Input Added)

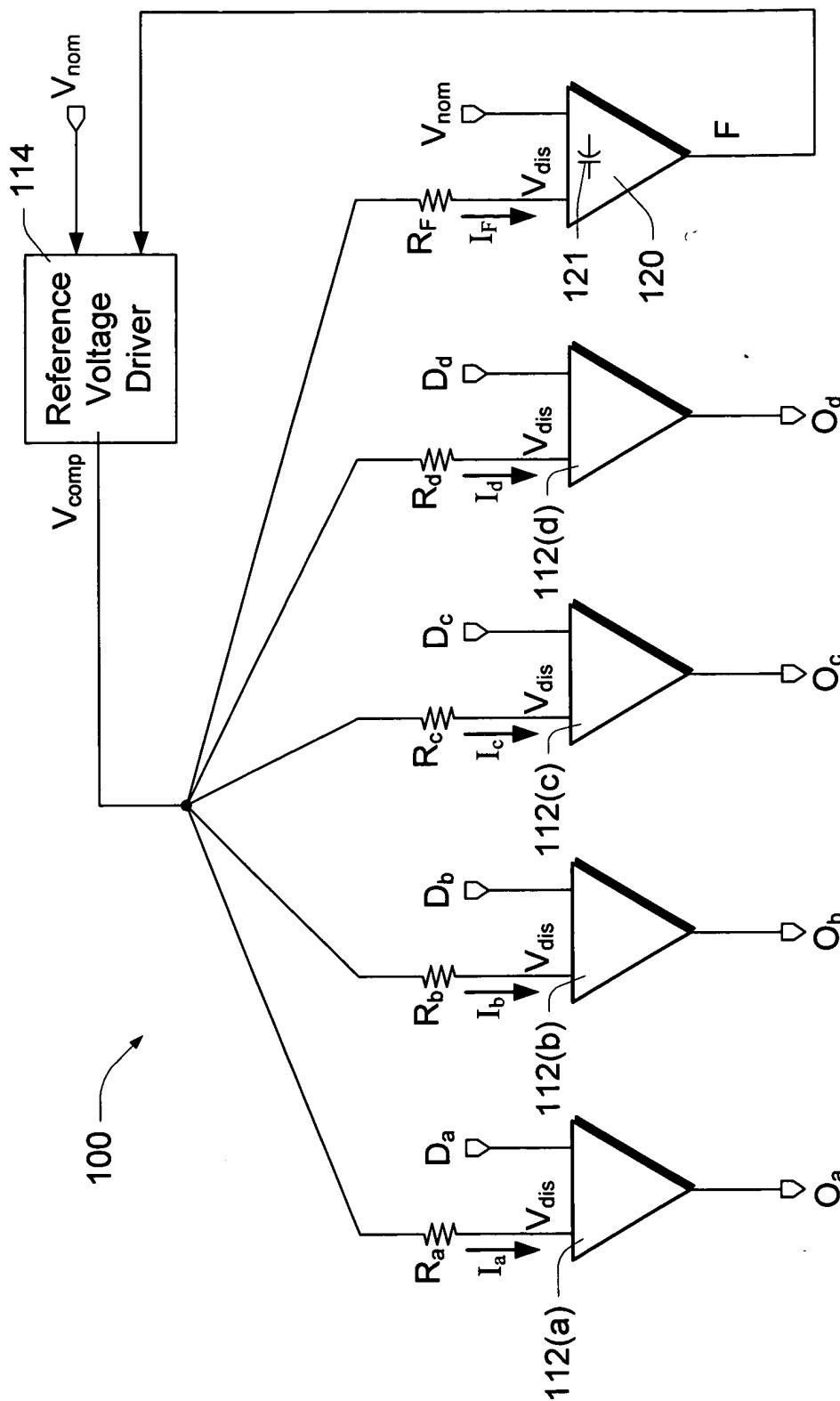


Fig. 2